

WHAT IS CLAIMED IS:

1 1. In a multi-processor computing environment, a method by a first
2 processor for allocating resources for use by a second processor, the method comprising:
3 providing a script to the first processor, the script containing information
4 related to the resources required by the second processor and when required;
5 parsing the script to determine the resources required by the second processor;
6 and
7 dynamically allocating the resources at the time needed by the second
8 processor.

1 2. The method of claim 1 wherein the script further comprises
2 information related to resources required by a third processor; and
3 dynamically allocating the resources at the time needed by the third processor.

1 3. The method of claim 3 further comprising
2 dedicating the first processor to processing the script.

1 4. The method of claim 1 wherein the resources are memory and matrix
2 configuration.

1 5. The method of claim 1 wherein the information is the execution
2 sequence of the program.

1 6. The method of claim 1 wherein the information is the amount of buffer
2 memory needed by the program.

1 7. A method by a processor for allocating resources for use by one or
2 more tasks in a multi-processor computing environment, the method comprising:
3 providing a script to the processor, the script containing a map of sequences
4 that will occur during execution of the one or more tasks;
5 parsing the script to determine resources required based on the map of
6 sequences; and

7 allocating the resources immediately prior to execution of the task.

1 8. The method of claim 7 wherein the script is an I/O processor script.

1 9. A predictive resource allocation system for a multi-processor
2 computing environment having two or more processors, comprising:
3 a first processor;
4 a dedicated processor dedicated to providing resource allocation to the first
5 processor;
6 a script file containing information related to the resources required by the
7 second processor;
8 a script engine for running the script file, the dedicated processor in
9 conjunction with the script engine parsing the script to determine the resources required by
10 the second processor; and
11 the dedicated processor dynamically allocating the resources at the time
12 needed by the first processor.

1 10. The system of claim 9 wherein the script further comprises
2 information related to resources required by a third processor; and
3 the dedicated processor dynamically allocating the resources at the time
4 needed by the third processor.

1 11. A method by a processor for allocating resources for use by two or
2 more tasks in a multi-processor computing environment, the method comprising:
3 providing a script to the processor, the script containing a map of sequences
4 that will occur during execution of the tasks;
5 parsing the script to determine the map of sequences for the tasks and to
6 determine the resources required by the tasks; and
7 allocating the resources to tasks such that resource allocation is synchronized
8 with when the resources are needed by tasks.

1 12. The method of claim 11 wherein allocating the resources further
2 comprises
3 dynamically allocating the resources at the time needed by the tasks.